## REMARKS

The Office Action of June 15, 2005, has been carefully considered. Claims 1-23 are pending in the application.

The specification was objected to because the arrangement of the disclosed application did not conform with 37 CFR 1.77(b).

Claims 1-23 were rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,314,460 to Knight et al. (hereinafter referred to as the Knight reference) in view of US Patent No. 5,339,392 to Risberg et al. (hereinafter referred to as the Risberg reference).

In overview, the objections have been overcome and the rejections have been traversed in view of the following remarks. Claim 1 has been amended for clarification. The Applicant respectfully requests reconsideration and allowance of the subject application. This Amendment is believed to be fully responsive to all issues raised in the Office Action dated June 15, 2005.

## Objections of Specification Under 37 CFR 1.77(b)

The specification has been amended to remove the boldfaced and underlined section headings throughout the disclosed specification as recommended by the Examiner. Therefore, the Applicant respectfully requests withdrawal of this objection.

## Claim Rejections Under 35 USC §103(a)

Claims 1-23 were rejected under 35 U.S.C. §103(a) as being unpatentable over the Knight reference in view of the Risberg reference. For at least some of

the reasons that follow, the Applicant respectfully disagrees that the subject matter of the above claims is obvious given the above cited references.

In overview, as stated in MPEP § 2143, to establish a prima facie case of obviousness, three basic criteria must be met.  First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in applicant's disclosure. In re Vaeck, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

Further, as stated in MPEP § 2143.01, obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art.  In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); In re Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).  The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. In re Mills, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990).

Therefore, "all words in a claim must be considered in judging the patentability of that claim against the prior art." In re Wilson, 424 F.2d 1382, 165 USPQ 494, 496 (CCPA 1970). If an independent claim is nonobvious under 35

U.S.C. 103, then any claim depending therefrom is nonobvious. In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988).

With this legal framework in mind, the Applicant traverses each of the rejections.

**Rejection of Independent Claim 1 and its Dependent Claims 2-13**

The Examiner contends that the Knight reference teaches each of the elements recited in Claim 1, except that it does not teach "receiving a plurality of strings". The Examiner contends that the Risberg reference teaches "receiving a plurality of strings". Then, the Examiner contends that it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified the Knight reference by the teaching of the Risberg reference because including receiving a plurality of strings, **would enable the system to be distributed among remote resources, wherein command (strings) are generated by various entities of the system and transmitted (and received) by the resolving component".** (emphasis added)

In order to best describe why the Applicant disagrees with the Examiner's contention, the Applicant will first briefly describe an overview of the invention and then contrast the present invention with the Knight and the Risberg references that were cited by the Examiner in rejecting Claims 1-13.

The present invention is directed at a mechanism for resolving partially unresolved strings within a command string using an operating environment mechanism. Thus, elaborate processing may be performed on the command string without requiring an administrator to write specific code. Page 63, lines 8-9. Several different types of processing performed by the operating environment

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mechanism are described in the application, such as a property path mechanism, a key mechanism, a compare mechanism, a conversion mechanism, a globber mechanism, a relationship mechanism, and a property set mechanism. Page 60, lines 15-17. The command string is separated into one or more individual component strings. Each component string represents some type of object that the operating environment mechanism is configured to determine. For example, the string may represent a property, a method with parameters, a method without parameters, a field, or the like. Page 61, lines 1-15. The type of object may not be natively supported by the operating environment. This allows new data types to be incorporated into the operating system. External sources may register their unique structure within a type metadata and provide code that returns the additional properties and methods associated with the new data type. Thus, the type metadata describes how to query various new types of precisely parse-able input to obtain the desired properties for creating an object for that specific type and the code provides instructions to obtain the desired properties. As a result, "reflection" may be performed on all types of objects, not just types natively supported by the operating environment. Page 20, line 16 to Page 21, line 12.

In contrast, the Knight reference is directed at an analyzer for a storage network attached to a host computer system through multiple controllers that receives information from each controller concerning a shared storage network bus, and resolves incomplete information received from one controller using information received by another controller, as described in the Abstract.

After reviewing the Knight reference, the Applicant is perplexed at how the Knight reference could be cited as teaching the recited claim. In fact, the Applicant questions the Knight reference as related art. First, the Examiner

1  correlates the shared storage network to the interactive operating environment

2  recited in Claim 1. The Examiner does not provide any additional information for

3  this correlation. Thus, the Applicant respectfully disagrees that the shared storage

4  network described in the Knight reference teaches an interactive operating

5  environment as recited in Claim 1. As described above, the interactive operating

6  environment accepts commands on a command line and via other input

7  mechanism. In contrast, in the portion cited by the Examiner, the shared storage

8  network is invoked by a command entered on an operating system command line.

9  Thus, the shared storage network does not "receive the command string" as recited

10  in Claim 1, but rather is invoked by the command. To clarify the present

11  invention, the Applicant has amended Claim 1 to recite that the "operating

12  environment mechanism" is "a part of the interactive operating environment". As

13  described above, once the present invention receives a command string, the

14  invention performs elaborate processing on the command string without requiring

15  administrators to write specific code.

16  Thus, the shared storage network cited by the Examiner can not possibly

17  teach or suggest the operating environment mechanism of an interactive operating

18  environment for "receiving a command string" and analyzing the partially

19  unresolved component string within the command string.

20  The Applicant agrees with the Examiner's contention that the Knight

21  reference does not teach receiving a plurality of strings, but disagrees with the

22  Examiner's contention that the Risberg reference can be combined with the Knight

23  reference to teach the cited element. The Examiner contends that combining the

24  Risberg reference with the Knight reference would **enable the system to be**

25  **distributed among remote resources, wherein command (strings) are**

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generated by various entities of the system and transmitted (and received) by the resolving component". (emphasis added by Applicant) The Applicant is perplexed by this statement because Claim 1 is not directed at having command (strings) generated by various entities of the system and received by the resolving component. Rather, the recited Claim 1 is directed at an operating environment mechanism of an interactive operating environment that separates a command string into one or more string components and resolves each partially unresolved string component. As described above, by resolving partially unresolved string components, the present invention can support non-native data types and perform elaborate processing on the command string without having the administrator write unique code.

The Applicant also disagrees with the Examiner's contention that the Risberg reference teaches "receiving a command string" and "separating the command string into one or more string components" as recited in amended Claim 1. The Risberg reference is directed at composing a custom active document, such as for displaying quotes of prices, volumes, etc. on various financial instruments. The portion (Col. 10, lines 5-28) cited by the Examiner for teaching "receiving a plurality of strings" describes a script which is a user defined string of commands that are executed in sequence. Claim 1 has been amended to clarify the invention by reciting "receiving a command string" and "separating the command string into one or more string components". Thus, the Risberg reference fails to teach or suggest this limitation.

In addition, neither the Knight nor the Risberg reference teach or suggest "analyzing the partially unresolved string to completely resolve the string into an associated type of object" as recited in the amended Claim 1. The portion cited

by the Examiner (col. 37, lines 38-59) for teaching "initiating an operating environment mechanism for analyzing the partially unresolved string to completely resolve the string" appears to perform a string compare to determine a match. However, as recited in amended Claim 1, analyzing the partially unresolved string resolves the string into an associated type of object. As mentioned above in the brief description of the invention, the type of object may be a native data type or a non-native data type.

Thus, in summary, the Examiner has not cited any reference that teaches or suggests the claimed invention. In fact, even if all of these references could be combined, their teachings could not possibly suggest the present invention. In addition, there is no suggestion or motivation to combine these references. Thus, for at least one of the above reasons, the Applicant contends that the Knight reference, whether considered alone or with any permissible combination of prior art of record, does not teach or suggest each limitation recited in independent Claim 1. Therefore, the Applicant respectfully submits that the §103 rejection of independent Claim 1 is improper, and respectfully requests reconsideration and withdrawal of this rejection.

Furthermore, the dependent Claims 2-13 of Claim 1 include other limitations that are not taught or suggested by the prior art of record. Therefore, for at least the above reasons, Applicant respectfully submits that the §103 rejections of dependent Claims 2-13 is improper, and respectfully requests reconsideration and withdrawal of this rejection.

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**Rejection of Independent Claims 14 and 19 and their Dependent Claims**

The Examiner contends that the Knight reference teaches each of the elements recited in independent Claims 14 and 19, except that it does not teach "receiving parseable input". The Examiner contends that the Risberg reference teaches "receiving parseable input". Then, the Examiner again contends that it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified the Knight reference by the teaching of the Risberg reference because including receiving parseable input, would **enable the system to be distributed among remote resources, wherein command (strings) are generated by various entities of the system and parsed (transmitted and received) by the resolving component"**. (emphasis added)

The Examiner now contends that the shared storage networks teaches an operating environment as recited in Claims 14 and 19. Without out unnecessarily repeating the above arguments for independent Claim 1, the Applicant states that the applicable arguments above also apply to these claims.

In addition, independent Claims 14 and 19 also include other elements "the parseable input including content that uses a data type that is not natively supported by the operating environment", "retrieving extended information that defines the data type", and "creating an instance of the data type."

Upon review of the portions cited by the Examiner for these elements, the Applicant disagrees with the Examiner's contention that the Knight reference teaches or suggests the recited elements. For example, column 37, lines 48-59 are recited for teaching that the input includes content that uses a data type that is not natively supported by the operating environment. However, upon closer examination of the cited portion, the Applicant respectfully disagrees that the cited

portions even discuss data types, let alone non-native data types supported by the operating environment, extended information, or creating an instance of the data type.

Thus, in summary, the Examiner has not cited any reference that teaches or suggests the claimed invention. In fact, even if all of these references could be combined, their teachings could not possibly suggest the present invention. In addition, there is no suggestion or motivation to combine these references. Thus, for at least one of the above reasons, the Applicant contends that the Knight reference, whether considered alone or with any permissible combination of prior art of record, does not teach or suggest each limitation recited in independent Claims 14 and 19. Therefore, the Applicant respectfully submits that the §103 rejection of independent Claims 14 and 19 is improper, and respectfully requests reconsideration and withdrawal of this rejection.

Furthermore, the dependent Claims 15-18 and 20-23 of Claim 14 and 19, respectively, include other limitations that are not taught or suggested by the prior art of record. Therefore, for at least the above reasons, Applicant respectfully submits that the §103 rejections of dependent Claims 15-18 and 20-23 is improper, and respectfully requests reconsideration and withdrawal of this rejection.

## Conclusion

Applicant has considered the other references cited by the Examiner in the Office Action. None of these references appear to affect the patentability of Applicant's claims. By the foregoing remarks, Applicant believes that pending claims 1-23 are allowable and the application is in condition for allowance. Therefore, a Notice of Allowance is respectfully requested. Should the Examiner

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have any further issues regarding this application, the Examiner is requested to contact the undersigned attorney for the Applicant at the telephone number provided below.

Respectfully Submitted,

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